

ABSTRACT

Each of the high frequency power supplying device of the present invention and the plasma generation device using the same includes: two or more inductive antennas (1); high frequency power sources (2, 4), respectively supplying power to the antennas (1); and a vacuum chamber (6) on which the antennas (1) are provided so as to generate a plasma by inductive coupling with high frequency power, wherein each of the high frequency power sources (2, 4) is positioned close to a corresponding antenna (1). On this account, it is possible to reduce unevenness in high frequency voltages generated in the antennas (1). Thus, even when a diameter and a volume of the plasma generation section are made larger, it is possible to generate much more uniform plasma, thereby stabilizing (i) thin film formation processes based on the plasma and (ii) plasma ion implantation processes.